

1-8. (Canceled)

9. (Currently Amended) A method for identifying a compound that modulates the interaction between MSH4 and MSH5, comprising contacting MSH4 with ~~said~~ a test compound and determining the ability of said test compound to modulate the interaction between MSH4 and MSH5, thereby identifying a compound that modulates the interaction between MSH4 and MSH5.

10. (Original) The method of claim 9, wherein said compound inhibits the interaction between MSH4 and MSH5.

11. (Original) A method for identifying a contraceptive compound, comprising contacting MSH4 with a test compound and determining the ability of said test compound to inhibit the interaction between MSH4 and MSH5, thereby identifying a contraceptive compound.

12. (Currently Amended) The method of one of claims 9 or 11, wherein MSH4 is contacted directly with a test compound.

13-28. (Canceled)

29. (New) A method for identifying a compound that modulates the interaction between MSH4 and MSH5, comprising contacting a cell expressing MSH4 and MSH5 with a test compound and determining the ability of said test compound to modulate the interaction between MSH4 and MSH5.

30. (New) A method for identifying a contraceptive compound, comprising contacting a cell expressing MSH4 and MSH5 with a test compound and determining the ability

of said test compound to inhibit the interaction between MSH4 and MSH5, thereby identifying a contraceptive compound.

31. **(New)** The method of one of claims 9, 11, 29, or 30 wherein said test compound is a small molecule.

32. **(New)** The method of one of claims 9, 11, 29, or 30, wherein said test compound is a peptide.

33. **(New)** The method of one of claims 9, 11, 29, or 30, wherein said test compound is a nucleic acid molecule.

34. **(New)** The method of one of claims 9, 11, 29, or 30, wherein said compound is an anti-MSH4 antibody.

35. **(New)** The method of one of claims 29 or 30, wherein said cell is an oocyte or a spermatocyte.